REMARKS

I.   Formalities

Applicant thanks the Examiner for indicating that the Formal Drawings filed on October 5, 2000 are accepted.

However, the Examiner did not acknowledge the claim for priority under 35 U.S.C. § 119, and receipt of the certified copy of the priority document submitted on October 5, 2000. Applicant respectfully requests that the Examiner acknowledge receipt of the aforementioned priority document.

II.   Status of the Application

Claims 1-11 are all the claims pending in the Application, with claims 1 and 6 being in independent form. Claims 1-11 have been rejected.

III.   Claim Rejections Under 35 U.S.C. § 103

The Examiner has rejected claims 1-11 under 35 U.S.C. § 103(a) as being unpatentable over Applicant's admitted prior art (hereinafter "APA"), and further in view of U.S. Patent No. 6,453,159 to Lewis (hereinafter "Lewis").

In order for the Examiner to maintain a rejection under 35 U.S.C. § 103, the references cited by the Examiner must teach or suggest <u>all</u> of the limitations of claims 1-11. Applicant respectfully submits that neither Applicant's APA, Lewis, nor any combination thereof, teach or suggest all of the limitations of Applicant's claims 1-11.

Applicant's APA, as disclosed in Figure 2 of the present Application, teaches a

conventional procedure for encryption authentication using the Wired Equivalent Privacy

("WEP") security protocol algorithm stipulated in the IEEE 802.11.

On the other hand, Lewis teaches an encryption scheme for providing two or more levels

of encryption to prevent unauthorized access to a wireless network. *See* column 1, lines 5-8. In

particular, Lewis teaches that key distribution server 76 is configured to distribute a first

encryption key to a plurality of mobile terminals 66, wherein each of the mobile terminals 66

uses the first encryption key to encrypt its wireless communications with a respective access

point 54. *See* column 2, lines 62-67; Figure 1. Lewis also teaches that key distribution server 76

determines whether the source of a request packet received from an access point 54 is authorized

based on the network address or ID of each of the authorized mobile terminals 66, a list of which

is included in the first column of the system device table 152. *See* column 9, lines 53-64; column

10, lines 10-12; Figure 4.

A.   Independent Claim 1

With respect to independent claim 1, the Examiner acknowledges that Applicant's APA

fails to teach or suggest an authentication server from which an access point requests the

authentication of an authentication request, as recited in claim 1. Applicant agrees with the

Examiner that Applicant's APA does not teach or suggest this feature.

However, the Examiner attempts to cure the deficient teachings of Applicant's APA by

applying Lewis, alleging that key distribution server 76 taught in Lewis corresponds to an

authentication server, as recited in claim 1. Applicant respectfully disagrees with the Examiner

and submits that neither Applicant's APA, Lewis, nor any combination thereof, teach or suggest

an authentication method comprising checking an authentication request at an authentication

server based on a media access control ("MAC") address of a terminal station, as required by

Applicant's claim 1.

In contrast to the requirements of claim 1, Lewis teaches that key distribution server 76

maintains a list of devices in system device table 152 that are authorized to communicate with

network 51 in either an encrypted or a non-encrypted format. *See* column 9, lines 53-64.

Further, Lewis teaches that in steps 252 and 254, respectively, key distribution server 76 receives

a request packet from an access point 54 and then determines whether the source of the request

packet is included in the list of authorized devices in system device table 152. *See* column 14,

lines 24-32. Thus, Lewis teaches that key distribution server 76 determines whether the source

of the request is authorized based on the contents of system device table 152. Accordingly, in

order for the position taken by the Examiner to hold true (i.e., in order for the key distribution

server 76 taught in Lewis to determine whether the source of a request is authorized based on the

MAC address of a mobile terminal 66, which Applicant firmly submits it does not) device table

152 would necessarily have to include the corresponding MAC addresses of each mobile

terminal 66.

However, Lewis clearly does not teach or suggest that system device table 152 includes

the MAC address of each mobile terminal 66. In fact, Lewis teaches quite the opposite—that the

first column of system device table 152 may include, for example, the network address or ID of

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each of the access points 54 in the system and each of the authorized mobile terminals 66 (e.g., MT1, MT2, etc.). *See* column 10, lines 10-12; Figure 4.

Furthermore, the <u>network address</u> or ID taught in Lewis is completely different from a MAC address, as recited in Applicant's claim 1. For instance, Lewis teaches that the contents of system device table 152 (including the network address or ID) are manually inputted via an input device 154, such as a keypad, by a system administrator who determines which particular mobile terminals are entitled to gain access within the system 20. *See* column 9, line 64 – column 10, line 3. Thus, as disclosed in Lewis, the <u>network address</u> or ID stored in system device table 152 is a local logical identifier such as "MT1" or "MT2," which is manually assigned to each mobile terminal. *See* column 10, lines 8-12. In particular, Lewis teaches that, unlike a MAC address, the <u>network address</u> or ID is inputted by a system administrator long after the manufacture of each mobile terminal for local <u>network</u> identification purposes. *See* column 9, line 64 – column 10, line 3. Accordingly, the network address or ID taught in Lewis is a locally unique logical identifier, specific to system backbone 52.

In contrast to the manually inputted logical <u>network address</u> or ID taught in Lewis, claim 1 recites a <u>MAC address</u>, which is a globally unique hardware identifier which is permanently assigned when a device is manufactured. Indeed, a MAC address is a physical identifier which is physically stored inside a network card or device. Further, unlike the alphanumeric identifiers such as "MT1" and "MT2" taught in Lewis, which consist of three to five characters, a MAC address consists of a 48-bit hexadecimal number (12 characters). Thus, Lewis does not teach,

and is incapable of suggesting, that the <u>network address</u> or ID disclosed therein corresponds to a <u>MAC address</u> as recited in claim 1.

Nevertheless, the Examiner takes the position that the network address or ID taught in Lewis inherently includes a MAC address as taught by the IEEE 802.11, a standard which is taught in Lewis in lines 12-13 of column 6. However, "[i]n relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic <u>necessarily</u> flows from the teachings of the applied prior art." MPEP§ 2112 (emphasis in original).

Lines 12-13 of column 6 of Lewis teach only that each mobile terminal 66 is configured to transmit and receive messages in the form of information packets according to the IEEE 802.11 standard. Further, while the IEEE 802.11 standard places specifications on the parameters of both the physical and MAC layers of a network, neither the IEEE 802.11 standard, nor Lewis, teach or suggest that the manually assigned network address or ID listed in system device table 152 includes a MAC address. In fact, the network address or ID taught in Lewis does not <u>necessarily</u> include a MAC address. To the contrary, as discussed above, the network address or ID is a logical identifier manually assigned by the system administrator, which includes three to five alphanumeric characters such as "MT1" and "MT2." Thus, because the network address or ID taught in Lewis does not <u>necessarily</u> include a MAC address, the network address or ID does <u>not</u> inherently include a MAC address, as alleged by the Examiner.

Accordingly, Lewis does not teach, and is incapable of suggesting, that key distribution server 76 checks an authentication request based on a <u>MAC address</u> of a mobile terminal 66. As a result, neither Applicant's APA, Lewis, nor any combination thereof, teach or suggest an authentication method comprising checking an authentication request at an authentication server based on a <u>MAC address</u> of a terminal station, as required by Applicant's claim 1.

Thus, Applicant respectfully submits that independent claim 1 is patentable over the applied references for *at least* these reasons. Further, Applicant respectfully submits that dependent claims 2-5 are allowable, *at least* by virtue of their dependency on claim 1.

Accordingly, Applicant respectfully requests that the Examiner withdraw this rejection.

B.   Independent Claim 6

With respect to claim 6, the Examiner alleges that the key distribution server 76 taught in Lewis corresponds to an authentication server, as recited in Applicant's claim 6. Applicant respectfully disagrees with the Examiner, for *at least* reasons analogous to those discussed above with respect to independent claim 1, and submits that neither Applicant's APA, Lewis, nor any combination thereof, teach or suggest an authentication server which checks an authentication request from one of the terminal stations based on a <u>MAC address</u> of one of the terminal stations, as recited in claim 6.

Thus, Applicant respectfully submits that independent claim 6 is patentable over the cited references for *at least* these reasons. Further, Applicant respectfully submits that dependent

claims 7-11 are allowable *at least* by virtue of their dependency on claim 6. Accordingly,

Applicant respectfully requests that the Examiner withdraw this rejection.

IV.   Conclusion

In view of the above, reconsideration and allowance of this application are now believed

to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is

kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue

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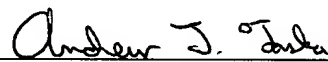
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